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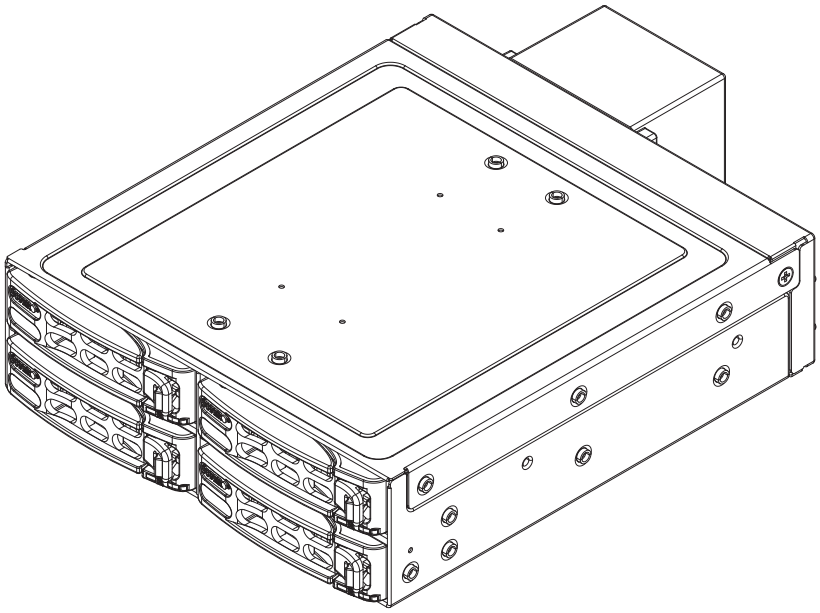

M14T

Mobile Rack

USER'S GUIDE

Rev. 1.0a

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Chapter 1

Introduction

1-1 Overview

This manual is written for system integrators, PC technicians and knowledgeable PC users who intend to integrate Supermicro's intelligent, highly expandable and cost-effective mobile rack solutions into their systems. It provides the user with detailed information for the installation and use of the M14T mobile rack.

The Supermicro M14T mobile rack, supports up to four hot-swappable SAS/SATA hard drives. It is packaged in a small size form factor (5.8" W x 1.7" H x 7.9" D) and runs up to 3 Gbps. The M14T showcases today's most advanced technological innovations in modular connectivity and data transferability, laying the foundation for reliable, effective and scalable solutions for tomorrow's data communications industry.

1-2 Product Features

The M14T mobile rack includes the following features:

- Slim design with a small size form factor (SFF) (5.8" W x 1.7" H x 7.9" D)
- Supports 4 x 2.5" hot-swappable SFF HDDs
- Supports up to 5V/10A (Average) and 12V/10A (Average)
- Operates at up to 3 Gbps
- Supports SAS/SATA

Operating Systems Supported

For the most up-to-date information visit the Supermicro Web site at www.supermicro.com

- Windows 2000, Windows XP, and Windows 2003
- Linux: Red Hat and SuSE
- Upgradable in the future

System Monitoring

- Overheat/Fan Fail LED indicators and an audible alarm indicating a system overheat or fan failure
- Drive Activity LED indicates the activity status of each disk drive

1-3 An Important Note to the User

The pictures or graphics shown in this User's Guide were based upon the latest PCB revision available at the time of the publishing of this manual. The M14T mobile rack you've received may or may not look exactly the same as the graphics shown in this manual.

1-4 Contacting Supermicro

Headquarters

Address: Super Micro Computer, Inc.
980 Rock Ave.
San Jose, CA 95131 U.S.A.
Tel: +1 (408) 503-8000
Fax: +1 (408) 503-8008
Email: marketing@supermicro.com (General Information)
support@supermicro.com (Technical Support)
Web Site: www.supermicro.com

Europe

Address: Super Micro Computer B.V.
Het Sterrenbeeld 28, 5215 ML
's-Hertogenbosch, The Netherlands
Tel: +31 (0) 73-6400390
Fax: +31 (0) 73-6416525
Email: sales@supermicro.nl (General Information)
support@supermicro.nl (Technical Support)
rma@supermicro.nl (Customer Support)

Asia-Pacific

Address: Super Micro Computer, Inc.
4F, No. 232-1, Liancheng Rd.
Chung-Ho 235, Taipei County
Taiwan, R.O.C.
Tel: +886-(2) 8226-3990
Fax: +886-(2) 8226-3991
Web Site: www.supermicro.com.tw
Technical Support:

1-5 Returning Merchandise for Service

A receipt or copy of your invoice marked with the date of purchase is required before any warranty service will be rendered. You can obtain service by calling your vendor for a Returned Merchandise Authorization (RMA) number. When returning to the manufacturer, the RMA number should be prominently displayed on the outside of the shipping carton, and mailed prepaid or hand-carried. Shipping and handling charges will be applied for all orders that must be mailed when service is complete.

For faster service, RMA authorizations may be requested online (http://www.supermicro.com/support/rma/).

Whenever possible, repack the mobile rack in the original Supermicro carton, using the original packaging material. If these are no longer available, be sure to pack the mobile rack securely, using packaging material to surround the mobile rack so that it does not shift within the carton and become damaged during shipping.

This warranty only covers normal consumer use and does not cover damages incurred in shipping or from failure due to the alteration, misuse, abuse or improper maintenance of products.

During the warranty period, contact your distributor first for any product problems.

Chapter 2

SASM14V Backplane

2-1 SASM14V Front Connectors and Jumpers

Backplane layout: The following information reflects SASM14V Revision 1.0, the most current release available at the time of publication. Always refer to the Supermicro Web site at www.supermicro.com for the latests updates, parts and supported configurations.

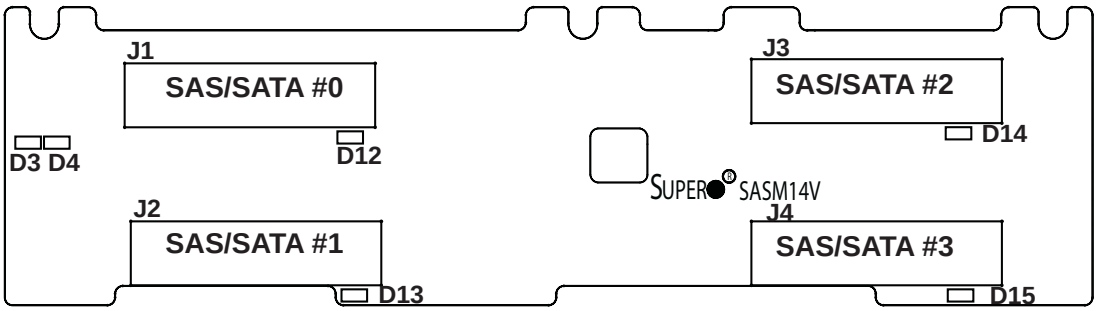

Figure 2-1: SASM14V Front View

Front Connectors

Front Connectors	
J1	SAS/SATA #0
J2	SAS/SATA #1
J3	SAS/SATA #2
J4	SAS/SATA #3

Front LED Indicators

Front LED Indicators	
D3	Overheat LED
D4	Fan Failure LED
D12	SAS/SATA #0 ACT LED
D13	SAS/SATA #1 ACT LED
D14	SAS/SATA #2 ACT LED
D15	SAS/SATA #3 ACT LED

2-2 SASM14V Rear Connectors and Jumpers

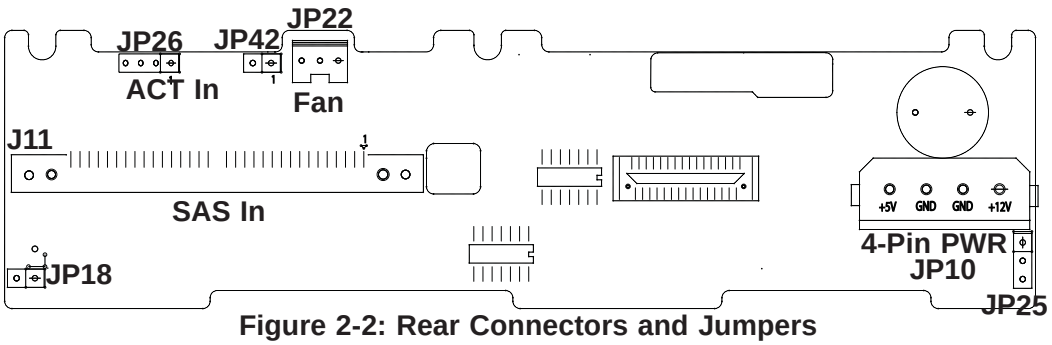

Figure 2-2: Rear Connectors and Jumpers

Rear Side Connectors

JP10: 4-pin power connector
The 4-pin power connector designated JP10, is located on the rear side of the SASM14V backplane. This power connector must be connected to your power supply in order to provide adequate power to the backplane. See the table on the right for pin definitions.

4-pin Power Connector Pin Definitions	
Pin#	Definition
1	+12V
2	Ground
3	Ground
4	+5V

JP11: SAS-In Connector

JP22: 3-pin Fan Header. The 3-pin fan header designated JP22, located on the rear side of the SASM14V backplane. Connect a cable to the fan header to provide cooling to the backplane. See the table on the right for pin definitions.

Fan Header Pin Definitions (JP22)	
Pin#	Definition
1	Ground
2	+12V
3	Tachometer

JP26: ACT-In Header

The 4-pin Act-In header designated JP26, is located on the rear side of the SASM14V backplane. It indicates the activity status of the SAS/SATA slots that are on the front of the backplane. See the table on the right for pin definitions.

Act-In Header Pin Definitions (JP26)	
Pin#	Definition
Open	Act-In#0-#3 (Default)
1	Act-In#0
2	Act-In#1
3	Act-In#2
4	Act-In#3

Rear Jumpers

Description	Definition
Open (*Default)	Normal
Closed	Buzzer reset
Open	Set overheat temperature to 45º Celcius
Pins 1-2 (*Default)	Set overheat temperature to 50º Celcius
Pins 2-3	Set overheat temperature to 55º Celcius
Open	Fan disabled
Closed (*Default)	Fan disabled

Chapter 3

Installation Instructions

3-1 Packing List

Examine the following items that are included in your shipping package. If any items are missing or damaged, please contact your retailer immediately.

- One 4-drive mobile rack cage (CSE-M14 ((B)) P)
- Four hot-swappable 2.5" hard disk drive (HDD) trays
- One cooling fan assembly (40MM)
- One screw set for 4 HDDs
- One SAS/SATA backplane (CSE-SAS-M14EV)
- One SATA Big4 to individual port fan out cable (CBL-0103)

3-2 Tools Needed

The following tools are needed for the installation of the mobile rack into chassis.

1. Phillips screw driver
2. Antistatic strap (Recommended)

3-3 Important Safety Guidelines

This product shall only be accessed, assembled and serviced by technically qualified personnel or technicians. To avoid personal injury and property damage, please carefully follow all the safety guidelines listed on the following pages before accessing or servicing the M14T.

Before Accessing the Mobile Rack:

1. Turn off all peripheral devices and the power supply connected to the chassis and unplug all power cords from the system or the wall outlets.

2. Disconnect all the cables and label the cables for easy identification.

3. Use a grounded wrist strap designed to prevent static discharge when handling components.

4. Save all the screws and fasteners for later use. (If necessary, label these screws or fasteners for easy identification.)

5. Follow the instructions given in the following section to remove and install the cooling fan, hard disks and the rear window.

3-4 Cooling Fan Installation and Removal

If your M14T mobile rack is a stand-alone model, you will need to install the cooling fan onto the M14T before operating it.

Installing the Cooling Fan

1. Place the cooling fan on the M14T mobile rack, aligning the mounting holes in the fan housing with the holes on the mobile rack.

2. Secure the fan to the mobile rack with two screws on each side of the fan.

3. Connect the cooling fan cable to the fan connector as illustrated.

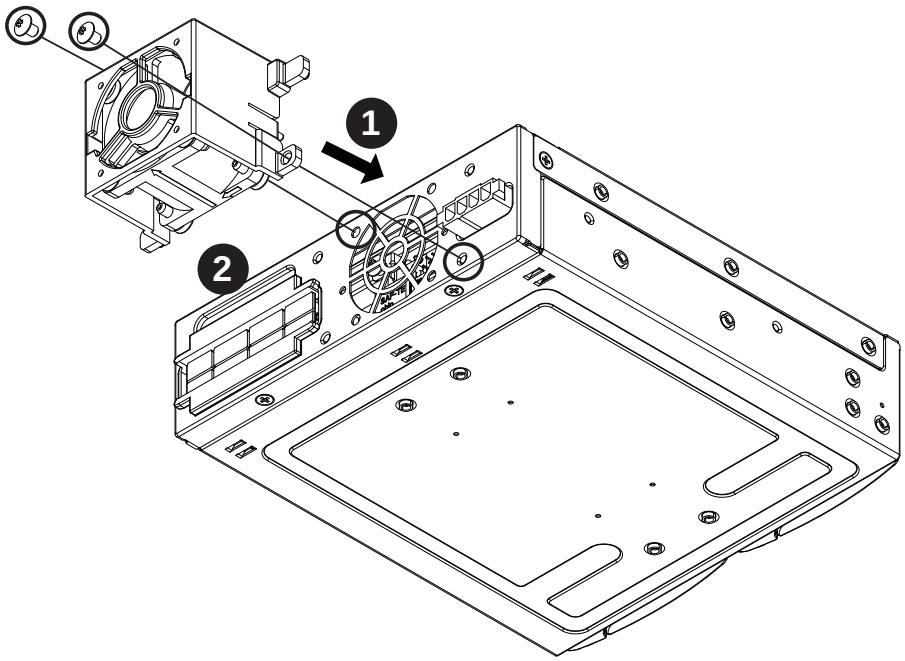

Figure 3-1: Installing the Cooling Fan

To remove the cooling fan, simply reverse the procedure above:

Removing the Cooling Fan

1. Disconnect the cooling fan cable.

2. Remove the screws securing the fan to the M14T

3. Remove the fan from the M14T.

3-5 HDD Installation

Removing the HDD Tray

Before installing the hard disk into the M14T, you will need to remove the HDD drive trays from the cage.

Removing the HDD Tray

1. Press the release tab toward the right to release the HDD drive tray from the M14T cage.

2. Once the drive tray is unlocked, pull it out using the handle.

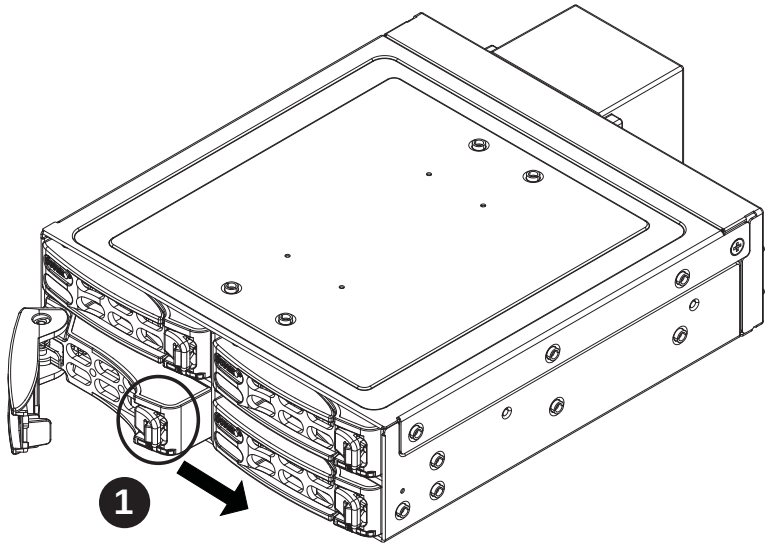

Figure 3-2: HDD Tray Release Tab

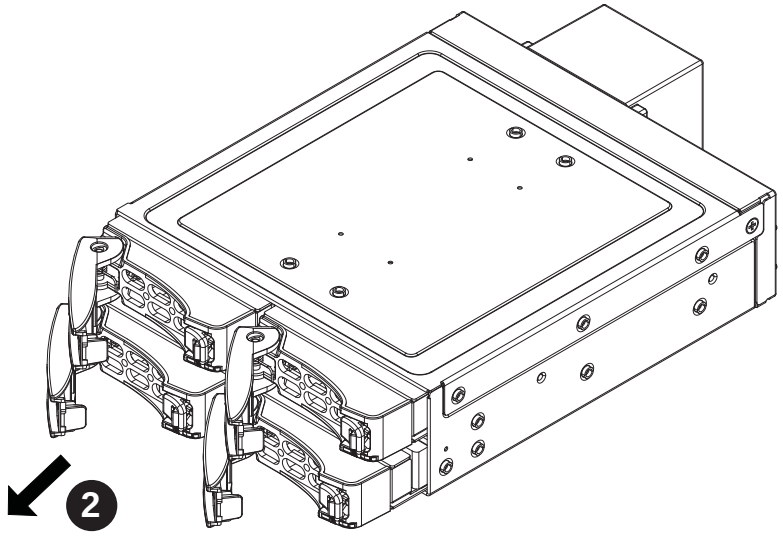

Figure 3-3: Removing Hard Drive Trays

Installing the Hard Disk Drive into the Drive Tray

Installing a Hard Disk Drive into the Drive Tray

1. Place a 2.5" HDD on top of the drive tray.
2. Align the HDD against the drive tray.
3. Secure the HDD onto the drive tray with four M-3 screws as shown below.

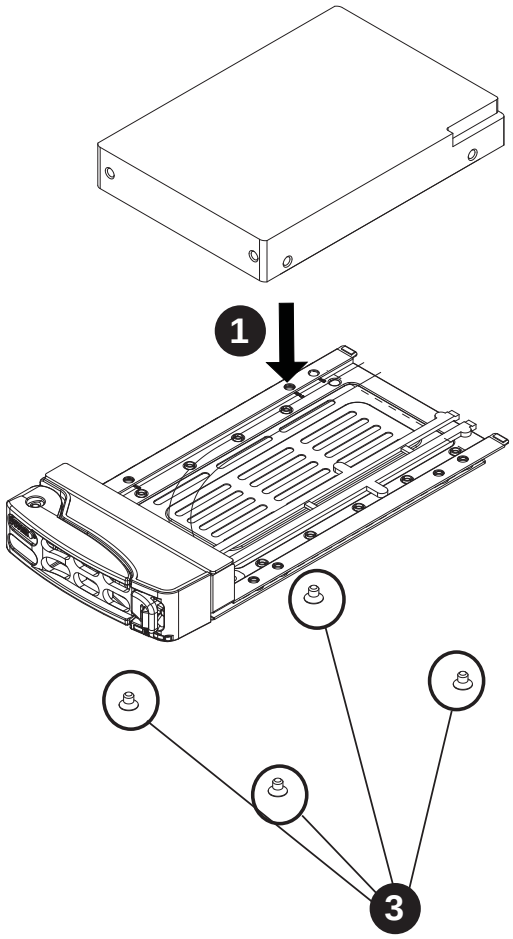

Figure 3-4: Installing an HDD into the Drive Tray

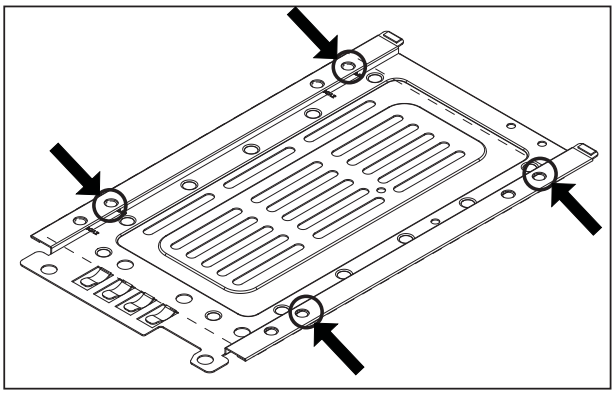

Figure 3-5: HDD Mounting Hole Locations

Installing Hard Disk Drive Trays into the Mobile Rack

Installing Drive Trays

1. After you've installed a hard disk drive into a drive tray as described on the previous page, you are ready to install the HDD into the mobile rack. Insert a loaded hard drive tray into a drive bay.

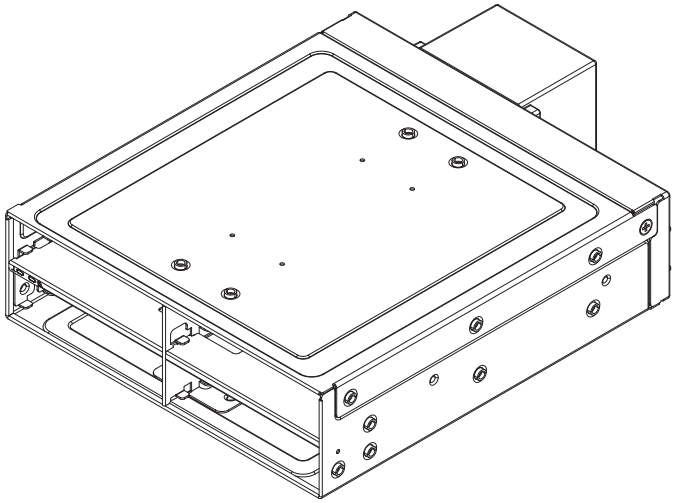

Figure 3-6: The M14T Mobile Rack

2. Push the HDD inward until it is fully seated in the drive bay.

3. Press the handle inward toward the mobile rack, pressing it into the locking position. When the handle is in the correct position, the handle will automatically lock.

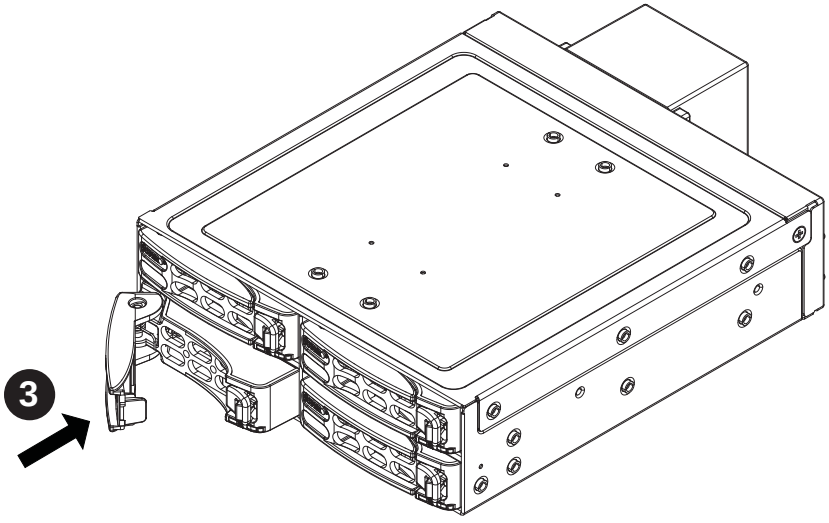

Figure 3-7: Latching The Hard Drive Tray

4. When the handle is in the correct position, the release tab will automatically lock.

3-6 Rear Panel Removal and Installation (Optional)

Removing the Rear Panel

1. Follow the procedures given previously to remove the cooling fan from the M14T mobile rack.

2. After the cooling fan is detached, remove the four screws from the M14T as shown below.

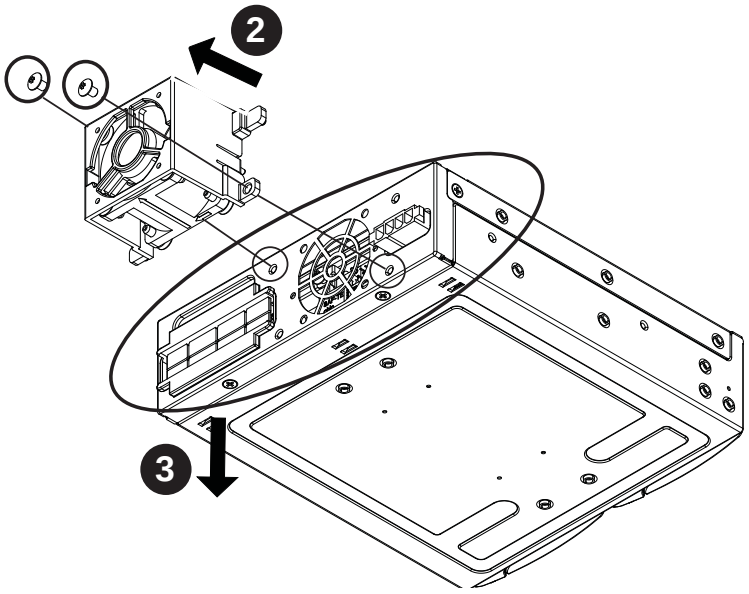

Figure 3-8: Removing the Rear Panel

3. Once the screws are removed, pull the rear panel away from the M14T to remove it.

Reverse the steps listed above to install the rear panel onto the M14T.

Installing the Rear Panel

1. Replace the rear panel on on the M14T.

2. Replace the cooling fan

3. Secure the fan with the four screws from the M14T as shown above.

Disclaimer (cont.)

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